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ABSTRACT OF THE DISCLOSURE

A process for fabricating a semiconductor device having a buried layer comprises the steps of implanting an impurity ion into
5 where the buried layer to be formed in a substrate, providing the substrate inside a reactor furnace, preparing a nonoxidizing atmosphere inside of the reactor furnace, annealing the substrate to activate and diffuse the implanted impurity ion region while increasing inside temperature of the reactor furnace up to a first
10 temperature, and shifting the inside temperature of the reactor furnace from the first temperature to a second temperature in which a epitaxial crystal starts to grow and introducing a epitaxial growth gas into the reactor furnace to grow an epitaxial layer on a surface of the substrate.

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